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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,815	11/16/2001	Akemi Sanada	NIT-308	7646

7590 01/09/2004

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EXAMINER

ZEENDER, FLORIAN M

ART UNIT	PAPER NUMBER
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3627

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,815

Applicant(s)

SANADA ET AL.

Examiner

F. Ryan Zeender

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 1-15 and 21-28 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

A restriction requirement was made in the Office Action mailed 4/30/03. The applicant elected, without traverse, Group I depicted by method claims 1-15. The applicant amended the claims in his responses received 9/2/03 and 10/15/03. A second restriction requirement was required in the Office action mailed 10/21/03 on the amended claims. The applicant elected, with traverse, invention "I" depicted by claims 1-3. The applicant incorporated the limitations of independent claim 1 into independent claims 4 and 21 of the non-elected claims. Claims 1-15 and 21-28 are now pending with no claims withdrawn from consideration. Claims 16-20 were canceled by the applicant.

Claim Objections

Claims 1-15 and 21-28 are objected to because of the following informalities: In claim 1, line 5, "responds requests" is confusing/awkward language; and it appears the terminology should be --responds to requests--. In claim 4, line 8, "responds requests" is confusing/awkward language; and it appears the terminology should be --responds to requests--. In claims 5-7, in lines 2-3 of each claim, it is not clear whether the terminology "a usable volume for said user at an initial setting stage" is the same usable volume described in claim 4 or a separate distinct volume. It appears the terminology should be changed to --the usable volume for said user at the initial setting stage--. In claim 21, line 8, "responds requests" is confusing/awkward language; and it appears the terminology should be --responds to requests--. In claims 23 and 26, line 3 of each

claim, it is not clear whether the terminology, "a management table" refers to the same management table described in claim 21, or to a separate distinct management table. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 1-15 and 21-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 15, "said disk devices" lacks antecedent basis. In claim 4, line 19, "said disk devices" lacks antecedent basis. In claim 4, lines 34-35, it is not clear whether "an operating unit" refers to the same operating unit described in line 20, or to a separate distinct operating unit. In claim 4, line 19, "said disk devices" lacks antecedent basis. In claim 21, line 19, "said disk devices" lacks antecedent basis.

Claim Rejections - 35 USC § 103

Claims 1-3 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawford '943 (*See, for example, Cols. 57-60*).

Crawford discloses or inherently (*i.e., it is inherent that the state of use information is sent to an owner's charging system*) teaches all the limitations of the claims except the specific teaching of holding requests of using disk devices in the shared memory; and updating an inputted used volume by users.

It would have been an obvious design choice at the time of the invention to one of ordinary skill in the art to modify Crawford to have the holding requests of using the

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disk devices in shared memory, in order for the user and the owner to have access to the information.

Re claim 2: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to have an inputted used volume updated **by users**, in order to allow for a user to charge himself/herself for services received and thus provide for an "honor" type charging system, as is often done in business.

Re claim 14: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to send the read unused volume to the charging system, as this information would involve a simple calculation from the total volume available, and would provide a safety means for ensuring that a user is not charged for a "used" volume that is in excess of the total volume available.

Re claim 15: It would have been an obvious design choice to one of ordinary skill in the art at the time of the invention to charge a lower fee for doubled (backup) data, as the service of providing a backup is a security feature that does not reflect the "use" of the storage system. A "double" is often given a discount in business (i.e., "2 or 1").

Allowable Subject Matter

Claims 4 and 21 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 5-13 and 22-28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments received 9/2/03 have been fully considered but they are not persuasive. On page 10 of the response received 9/2/03, the applicant states that "Crawford does not disclose a data storage that itself manages information by of a use state of a disk drive by referring to a use management table storing information about the state of use of the disk drive". However, Crawford does teach a "Storage Charge Table" (See Col. 59, line 56) that is used for billing purposes. ***Note: The structural limitations described in the preamble of independent claim 1 is given little or no patentable weight.***

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

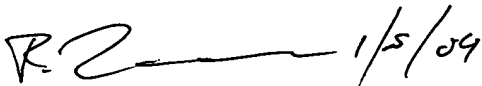
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Ryan Zeender whose telephone number is (703) 308-8351. The examiner can normally be reached on Monday-Friday, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bob Olszewski can be reached on (703) 308-5183. The receptionist's phone number for the Technology center is (703) 308-1113.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9327 for after-final communications.

A handwritten signature, likely of F. Zeender, followed by the date 1/5/04.

F. Zeender
Patent Examiner, A.U. 3627
January 5, 2004